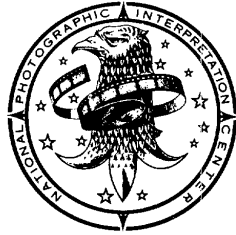


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**Basic Imagery Interpretation Report**



**NATIONAL  
PHOTOGRAPHIC  
INTERPRETATION  
CENTER**

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**GORKIY/SORMOVO RADAR ASSEMBLY  
AND TEST AREA**

25X1

**DEPLOYED COMM/ELEC/RADAR FACILITIES**

**USSR**

**MARCH 1969**

**COPY NO. 103**

Declassification by NGA/DoD

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**4 PAGES**  
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INSTALLATION OR ACTIVITY NAME

Gorkiy/Sormovo Radar Assembly and Test Area

COUNTRY

UR

25X1

UTM COORDINATES

NA

GEOGRAPHIC COORDINATES

56-19-30N 043-48-05E

MAP REFERENCE

ACIC. US Air Target Chart 200, Sheet M0154-25HL, 4th ed. May 66, Scale 1:200,000

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LATEST IMAGE USED

NEGATION DATE (if requested)

NA

**ABSTRACT**

This report provides a detailed imagery-derived analysis of the Gorkiy/Sormovo Radar Assembly and Test Area. The facility contains an engagement radar assembly line, calibration/test towers, and an area in which FAN SONG and unidentified radars are assembled or tested. It is the only known Soviet facility in which assembly and test/calibration of the engagement radar, which is the tracking/guidance radar for the SA-5 defensive missile system, takes place.

**INTRODUCTION**

The Gorkiy/Sormovo Radar Assembly and Test Area is at an elevation of 300 feet, adjacent to Gorkiy/Sormovo Airfield, and approximately 3.5 nautical miles west of Gorkiy, USSR (Figure 1).

The facility was first observed under construction in [redacted] photography of [redacted] revealed the facility to be nearly complete and possibly in limited operation. The type of radars present in the facility could not be identified until [redacted] photography of good interpretability was available. A detailed analysis of engagement radar is presented in Reference 1.

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The assembly and test area is contained within the security fence of the airfield. It is separated from the airfield by an RF fence to eliminate interference.

Access to the facility is provided by a road leading down the airfield taxiway and into Gorkiy Airframe Plant Ordzhonikidze 21. It is not possible to establish the precise relationship between the two facilities, but it is possible that the radar assembly and test area might share transshipment and storage facilities with the airframe plant. It has not yet been determined where the engagement radar components are fabricated.

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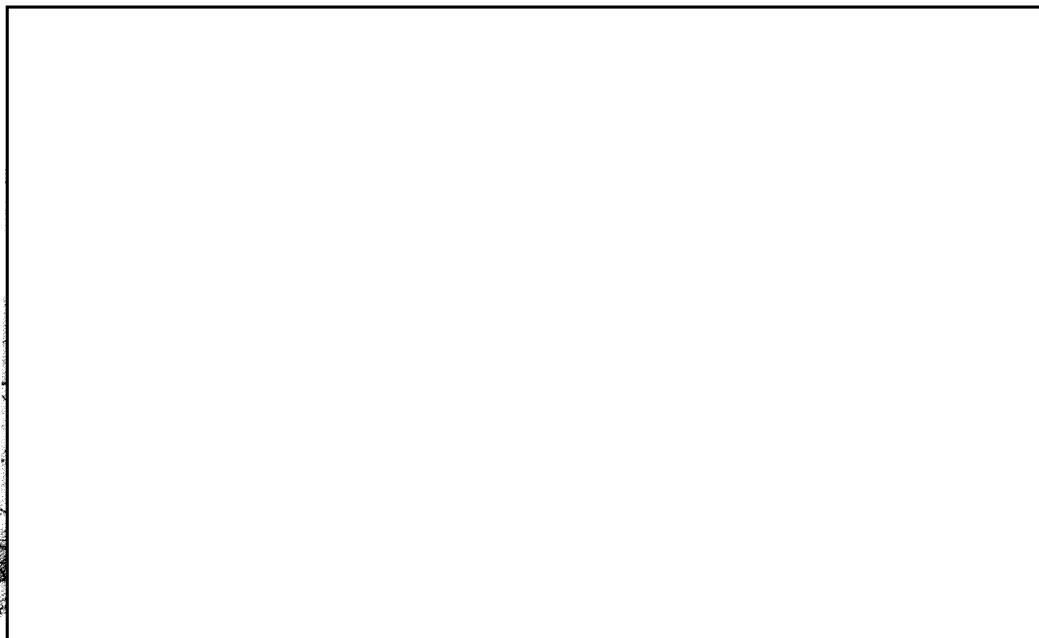


FIGURE 1. LOCATION MAP.

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**BASIC DESCRIPTION**

The Gorkiy/Sormovo Radar Assembly and Test Area can be subdivided into three functional components (Figure 2): the engagement radar assembly line, the area where FAN SONG radars and unidentified radars are assembled/tested, and the three calibration/test towers serving the facility. The six buildings within the facility are discussed below with regard to their respective functional components.

The engagement radar assembly line is located along the western edge of the facility and consists of five radar assembly bases situated between the rails of a traveling gantry crane. The width of the crane [ ] and the off-center positioning of the assembly bases allow antenna carriers and electronics vans to park beside the base and under the crane, for transloading, mounting, and testing radar components.

In the assembly process, the bases serve as the support for the radar, which is normally positioned atop a van in a deployed situation. The radars are not mounted on vans at this facility. Each assembly base consists of a pedestal [ ] in diameter and [ ] high with a support structure positioned on its top. The support structure is a horizontal crossarm approximately 30 feet long, fixed to the pedestal, with a vertical mount on each extremity to support the radar. The dimensions of the vertical mounts could not be determined but one is larger and more dense than the other.

Activity on the assembly line has remained at a relatively constant level on all missions where the identification of radars could be made. On the latest photography of [ ]

Three buildings are associated with the assembly line: one is located west, and two are north of the assembly line. The larger of the two northern buildings (item 4) has a dish antenna approximately [ ] in diameter mounted on its southwestern corner. The purpose of the building and the antenna is undetermined. The western building probably serves as the administration/control building for the facility.

It has not been possible to specifically identify the activity involving the FAN SONG radars, but they have appeared to be in different configurations or stages of assembly on various missions. The placement of clutter screens between the radars and two of the calibration/test towers indicates that FAN SONG radars or their components are tested at this facility. It is not known whether this testing is for routine inspections, research and development, or a limited assembly process.

The four buildings with mounts are located immediately east of the FAN SONG radars; three are approximately the same size, [ ] diameter ring mount, and the fourth is 15 by 15 feet and supports an unidentified mount. A variety of antennas has been observed on all four of these buildings, including trough reflectors (similar to those on a FAN SONG), dish antennas, and other antennas that could not be identified by type. Thus, the buildings appear to be used in support of either the research or development of radars, or the testing of radar components.

Two support buildings are associated with this test area; both are located south of the antenna support structures. A third building located adjacent to the easternmost FAN SONG radar was removed in 1967.

Three calibration/test towers serve the facility (Figure 2). Based on the placement of clutter screens, Tower A is considered to serve the three FAN SONG radars, Tower B serves the FAN SONG radars and the four antenna support buildings, and Tower C probably serves the engagement radar assembly line.

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The two western towers (B and C) are similar inasmuch as they are massive guyed towers with box-like structures ([REDACTED] with an undetermined height) mounted on the top. The tower that serves the FAN SONG radars is a lighter mast approximately 130 feet high with a dish reflector mounted on it.

### Chronology

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### REFERENCES



### MAPS OR CHARTS

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ACIC, US Air Target Chart 200, Sheet M0154-25HL, 4th ed, May 66, Scale 1:200,000 (SECRET [REDACTED])

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### DOCUMENT

1. US ARMY MISSILE COMMAND REDSTONE ARSENAL, ALABAMA, [REDACTED] Engage-  
ment Radar Modeling Study (S), Aug 68 (TOP SECRET [REDACTED])

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### REQUIREMENT

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NPIC Project 210633

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